

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A ceramic heater for heating a wafer comprising:
 - a ceramic substrate;
 - a resistor heating body on a surface of said ceramic substrate or inside said ceramic substrate;
 - a temperature measuring unit embedded in bottomed-holes formed on the surface opposite to a heating face of the ceramic substrate for measuring a temperature of the ceramic substrate;
 - a control unit feeding power to the resistor heating body;
 - a memory unit storing temperature data measured by the temperature measuring unit;
 - a calculation unit calculating power to be fed to the resistor heating body from the temperature data; and
 - the resistor heating body comprising two or more circuits capable of controlling the temperature independently, in which a temperature of a circuit located at an outer peripheral portion among the two or more circuits is controlled so as to be made higher than a temperature of a circuit located at an inner peripheral portion, and a wafer is heated while the wafer is separated apart from a heating face of the ceramic substrate.

2. (Original): The ceramic heater according to claim 1, wherein the control unit comprises a power source feeding power to the resistor heating body and a control part controlling the power source.

3. (Original): The ceramic heater according to claim 1, wherein the temperature measuring unit comprises a temperature measuring element.

4. (Original): The ceramic heater according to claim 3, wherein the temperature measuring element comprises a thermoviewer.

5. (Currently Amended): A method of controlling a temperature of a substrate in a ceramic heater for heating a wafer comprising a ceramic substrate; a resistor heating body on a surface or inside the ceramic substrate; a temperature measuring unit embedded in bottomed-holes formed on the surface opposite to a heating face of said ceramic substrate for measuring a temperature of the ceramic substrate; a control unit feeding power to the resistor heating body; a memory unit storing temperature data measured by the temperature measuring unit; a calculation unit calculating power to be fed to the resistor heating body from the temperature data; and the resistor heating body comprising two or more circuits capable of controlling the temperature independently;

the process comprising controlling a temperature of a circuit located at an outer peripheral portion among the two or more circuits to a temperature higher than a temperature of a circuit located at an inner peripheral portion and heating a wafer while the wafer is separated apart from a heating face of the ceramic substrate.

6. (Original): The method according to claim 5, wherein the control unit is constructed with a power source feeding power to the resistor heating body and a control part controlling the power source, and conducts the temperature control by feeding different powers to the circuit located at the outer peripheral portion and the circuit located at the inner peripheral portion based on temperature data measured by the temperature measuring unit.

7. (Original): The ceramic heater according to claim 3, wherein the temperature measuring element comprises a thermocouple.